



3330 Cameron Park Drive, Ste 550
Cameron Park, California 95682
(530) 676-6004 ~ Fax: (530) 676-6005

June 20, 2006
Project No. 2029-2400-01

Mr. Barry Marcus
Sacramento County Environmental
Management Department
8475 Jackson Road, Suite 230
Sacramento, CA 95826-3904

Re: Quarterly Groundwater Monitoring Report, Second Quarter 2006, for Kwik Serv Fueling Station, located at 2400 Fruitridge Road, Sacramento, California (LOP No. G028)


Dear Mr. Marcus:

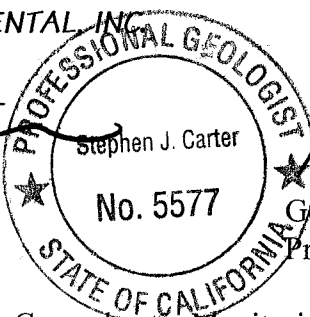
Stratus Environmental, Inc. (Stratus) is submitting the attached report which presents the results of the second quarter 2006 quarterly monitoring and sampling program on behalf of Mr. Bal Soin for the Kwik Serv Fueling Station, located at 2400 Fruitridge Road, Sacramento, California (Figure 1). This report is in compliance with Sacramento County Environmental Management Department requirements for underground storage tank (UST) investigations.

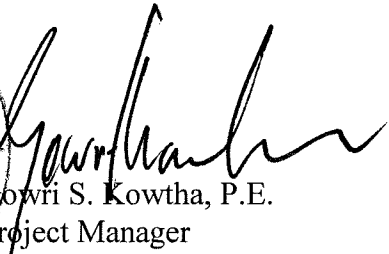
If you have any questions regarding this report, please contact Steve Carter at (530) 676-6008.

Sincerely,

STRATUS ENVIRONMENTAL, INC.


Stephen J. Carter, P.G.
Sr. Project Supervisor




Gowri S. Kowtha, P.E.
Project Manager

Attachment: Quarterly Groundwater Monitoring Report, Second Quarter 2006

cc: Mr. Bal Soin, Kwik Serv Fueling Station
Ms. Christyl Escarda, Central Valley Regional Water Quality Control Board

Date June 20, 2006

KWIK SERV QUARTERLY GROUNDWATER MONITORING REPORT

Facility: Kwik Serv Address: 2400 Fruitridge Road, Sacramento, California
Consulting Co./Contact Person: Stratus Environmental, Inc./ Stephen J. Carter, P.G.
Consultant Project No: 2029-2400-01
Primary Agency/Regulatory ID No: Barry Marcus, Sacramento County Environmental Management Department / G028

WORK PERFORMED THIS QUARTER (Second 2006):

1. Stratus monitored the groundwater elevation and collected groundwater samples from well MW-4 on May 15, 2006.
2. Stratus compiled and evaluated groundwater monitoring data.
3. Stratus conducted a soil vapor extraction (SVE) test on April 6, 2006. Stratus prepared and submitted a *Soil Vapor Extraction Test Report* dated May 31, 2006.

WORK PROPOSED FOR NEXT QUARTER (Third 2006):

1. The next sampling event is tentatively scheduled for May 2006. Groundwater samples will be collected for laboratory analysis from well MW-4.
2. Groundwater samples will be analyzed at a state-certified analytical laboratory for total petroleum hydrocarbons as gasoline (TPHG) by EPA Method SW8015B/DHS LUFT Manual, and for benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl tertiary butyl ether (MTBE), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE), di-isopropyl ether (DIPE), tertiary butyl alcohol (TBA), and 1,2-dichloroethane (1,2-DCA) by EPA Method SW8260B.

Current Phase of Project:	<u>Assessment</u>
Frequency of Groundwater Sampling:	<u>All Wells = Quarterly</u>
Frequency of Groundwater Monitoring:	<u>Quarterly</u>
Groundwater Sampling Date:	<u>May 15, 2006</u>
Is Free Product (FP) Present on Site:	<u>No</u>
FP Recovered This Quarter:	<u>NA</u>
Cumulative FP Recovered to Date:	<u>NA</u>
Approximate Depth to Groundwater:	<u>27.01 feet below top of well casing</u>
Groundwater Flow Direction:	<u>NA</u>
Groundwater Gradient:	<u>NA</u>

DISCUSSION:

At the time of the second quarter 2006 sampling event, the groundwater elevation measured in well MW-4 had increased 1.06 feet since the previous monitoring event (March 9, 2006). Depth-to-water measurements were corrected to mean sea level (Table 1). TPHG, BTEX compounds, MTBE, ETBE, DIPE, TAME, TBA, or 1,2-DCA were not reported in well MW-4.

ATTACHMENTS:

- Table 1 Groundwater Elevation and Analytical Summary
- Table 2 Groundwater Analytical Results for Oxygenates and Additional Compounds
- Figure 1 Site Location Map
- Figure 2 Site Plan
- Appendix A Field Data Sheets
- Appendix B Sampling and Analysis Procedures
- Appendix C Certified Analytical Reports and Chain-of-Custody Documentation

TABLE 1

GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

Kwik Serv Fueling Station

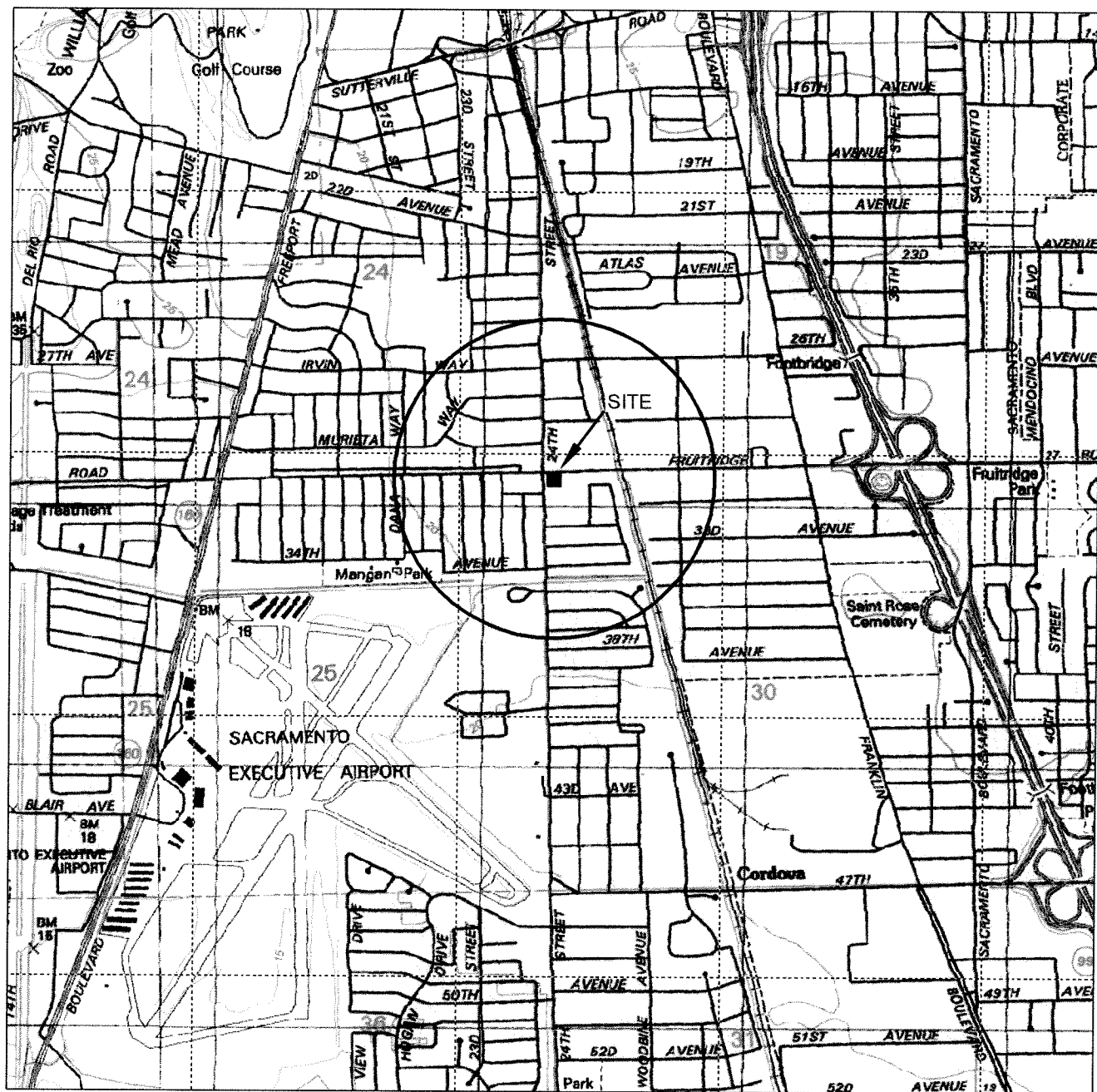
2400 Fruitridge Road

Sacramento, CA

Well ID	Date Sampled	TOC Elevation (feet msl)	Depth to Groundwater (feet bgs)	Groundwater Elevation (feet msl)	TPHG $\mu\text{g/L}$	Benzene $\mu\text{g/L}$	Toluene $\mu\text{g/L}$	Ethylbenzene $\mu\text{g/L}$	Total Xylenes $\mu\text{g/L}$	MTBE $\mu\text{g/L}$
MW-4	03/09/06	23.97	28.07	-4.10	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	05/15/06	23.97	27.01	-3.04	<50	<0.50	<0.50	<0.50	<0.50	<0.50
<p>Notes:</p> <p>TPHG analyzed using EPA Method 8015B/DHS LUFT Manual</p> <p>All other analytes analyzed using EPA Method 8260B</p> <p>TPHG = Total Petroleum Hydrocarbons as Gasoline</p> <p>MTBE = Methyl tertiary butyl ether</p> <p>TOC = Top of Casing</p> <p>bgs = below ground surface</p> <p>msl = mean sea level</p> <p>$\mu\text{g/L}$ = micrograms per liter</p>										

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
FOR OXYGENATES AND ADDITIONAL COMPOUNDS
Kwik Serv Fueling Station
2400 Fruitridge Road
Sacramento, CA

Well ID	Date Sampled	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)
MW-4	03/09/06	<0.50	<1.0	<1.0	<1.0	<10	<1.0
	05/15/06	<0.50	<1.0	<1.0	<1.0	<10	<1.0
NOTES: MTBE = Methyl tertiary butyl ether ETBE = Ethyl tertiary butyl ether DIPE = Di-isopropyl ether TAME = Tertiary amyl methyl ether TBA = Tertiary butyl alcohol 1,2-DCA = 1,2-Dichloroethane µg/l = Micrograms per liter Analyzed using USEPA Method 8260B							



GENERAL NOTES:
 BASE MAP FROM U.S.G.S.
 SACRAMENTO, CA.
 7.5 MINUTE TOPOGRAPHIC
 PHOTOREVISED 1980



QUADRANGLE LOCATION



SCALE 1:24,000

STRATUS
 ENVIRONMENTAL, INC.

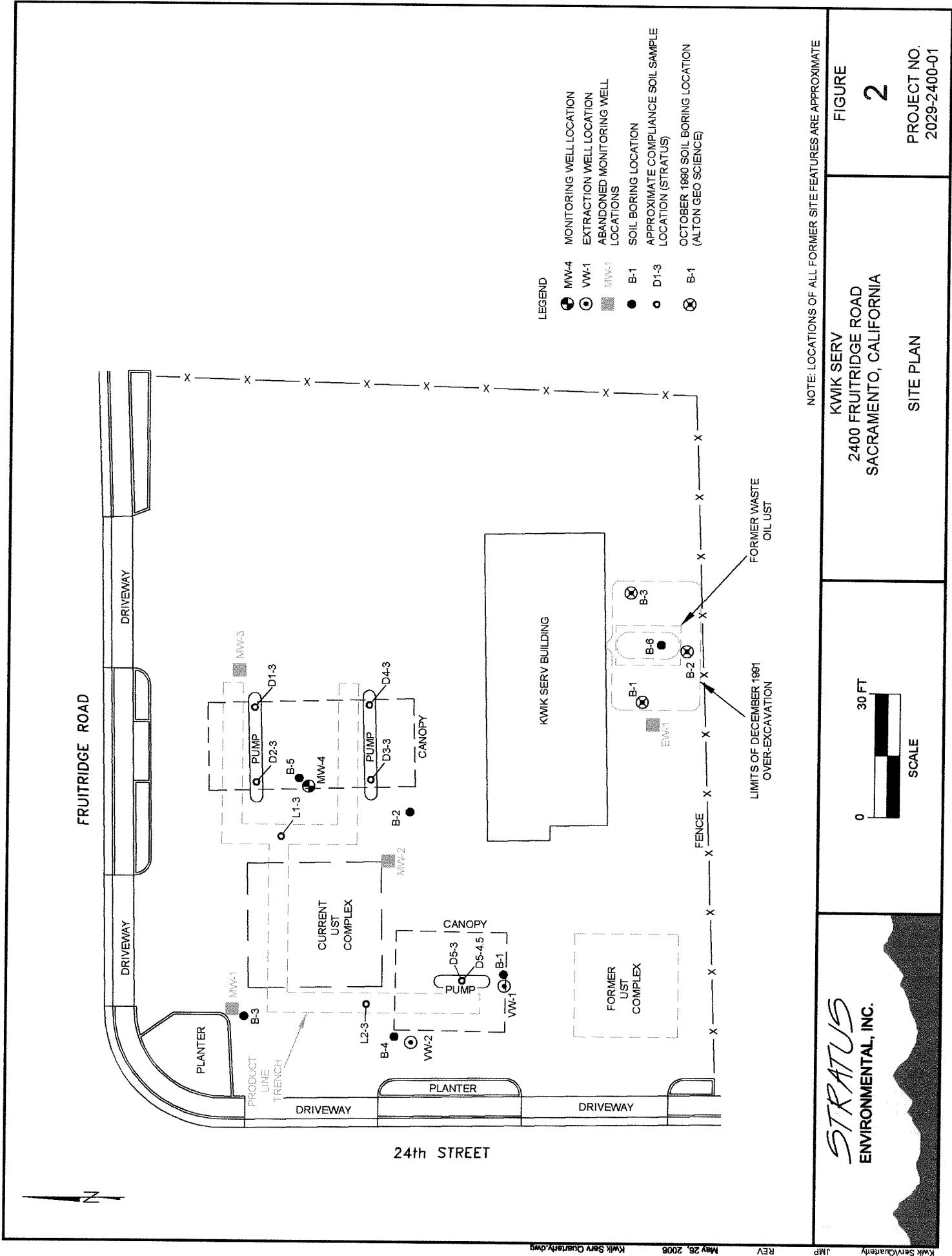
KWIK SERV FUELING STATION
 2400 FRUITRIDGE ROAD
 SACRAMENTO, CALIFORNIA

SITE LOCATION MAP

FIGURE

1

PROJECT NO.
 2029-2400-01



APPENDIX A

FIELD DATA SHEETS



Site Contact Phone No.

[illegible]

(A) Casing water Column
Depth wtr. Depth to Bottom

Multiplier Values
2"=0.5 4"=2.0 6"=4.4

ORIGINAL

STRATUS
ENVIRONMENTAL INC.

Site Address 2400 Fruitridge
City Sac
Site Sampled by D. Foland

Site Number Kwik Serv
Project No. 2029-2400-01
Project PM Bowji Rowtha
Date Sampled 5/15/04

Well ID <u>MW-4</u>					Well ID				
purge start time					purge start time				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons
time <u>11:35</u>	<u>22.6</u>	<u>6.77</u>	<u>1038</u>	<u>0</u>	time				
time <u>11:45</u>	<u>22.3</u>	<u>6.67</u>	<u>1011</u>	<u>6 1/2</u>	time				
time					time				
time					time				
purge stop time					pugre stop time				
Well ID					Well ID				
purge start time					purge start time				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons
time					time				
time					time				
time					time				
time					time				
purge stop time					purge stop time				
Well ID					Well ID				
purge start time					purge start time				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons
time					time				
time					time				
time					time				
time					time				
purge stop time					purge stop time				
Well ID					Well ID				
purge start time					purge start time				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons
time					time				
time					time				
time					time				
time					time				
purge stop time					purge stop time				

APPENDIX B

SAMPLING AND ANALYSIS PROCEDURES

SAMPLING AND ANALYSIS PROCEDURES

The sampling and analysis procedures as well as the quality assurance plan are contained in this appendix. The procedures and adherence to the quality assurance plan will provide for consistent and reproducible sampling methods; proper application of analytical methods; accurate and precise analytical results; and finally, these procedures will provide guidelines so that the overall objectives of the monitoring program are achieved.

Ground Water and Liquid-Phase Petroleum Hydrocarbon Depth Assessment

A water/hydrocarbon interface probe is used to assess the liquid-phase petroleum hydrocarbon (LPH) thickness, if present, and a water level indicator is used to measure the ground water depth in monitoring wells that do not contain LPH. Depth to ground water or LPH is measured from a datum point at the top of each monitoring well casing. The datum point is typically a notch cut in the north side of the casing edge. If a water level indicator is used, the tip is subjectively analyzed for hydrocarbon sheen.

Subjective Analysis of Ground Water

Prior to purging, a water sample is collected from the monitoring well for subjective assessment. The sample is retrieved by gently lowering a clean, disposable bailer to approximately one-half the bailer length past the air/liquid interface. The bailer is then retrieved, and the sample contained within the bailer is examined for floating LPH and the appearance of a LPH sheen.

Monitoring Well Purging and Sampling

Monitoring wells are purged using a pump or bailer until pH, temperature, and conductivity of the purge water has stabilized and a minimum of three well volumes of water have been removed. If three well volumes can not be removed in one half hour's time the well is allowed to recharge to 80% of original level. After recharging, a ground water sample is then removed from each of the wells using a disposable bailer.

A Teflon bailer, electric submersible or bladder pump will be the only equipment used for well sampling. When samples for volatile organic analysis are being collected, the pump flow will be regulated at approximately 100 milliliters per minute to minimize pump effluent turbulence and aeration. Glass bottles of at least 40-milliliters volume and fitted with Teflon-lined septa will be used in sampling for volatile organics. These bottles will be filled completely to prevent air from remaining in the bottle. A positive meniscus forms when the bottle is completely full. A convex Teflon septum will be placed over the positive meniscus to eliminate air. After the bottle is capped, it is inverted and tapped to verify that it contains no air bubbles. The sample containers for other parameters will be filled, filtered as required, and capped.

The water sample is collected, labeled, and handled according to the Quality Assurance Plan. Water generated during the monitoring event is disposed of according to regulatory accepted method pertaining to the site.

QUALITY ASSURANCE PLAN

Procedures to provide data quality should be established and documented so that conditions adverse to quality, such as deficiencies, deviations, nonconformants, defective material, services, and/or equipment, can be promptly identified and corrected.

General Sample Collection and Handling Procedures

Proper collection and handling are essential to ensure the quality of a sample. Each sample is collected in a suitable container, preserved correctly for the intended analysis, and stored prior to analysis for no longer than the maximum allowable holding time. Details on the procedures for collection and handling of samples used on this project can be found in this section.

Soil and Water Sample Labeling and Preservation

Label information includes a unique sample identification number, job identification number, date, and time. After labeling all soil and water samples are placed in a Ziploc® type bag and placed in an ice chest cooled to approximately 4° Celsius. Upon arriving at Stratus' office the samples are transferred to a locked refrigerator cooled to approximately 4° Celsius. Chemical preservation is controlled by the required analysis and is noted on the chain-of-custody form. Trip blanks supplied by the laboratory accompany the groundwater sample containers and groundwater samples.

Upon recovery, the sample container is sealed to minimize the potential of volatilization and cross-contamination prior to chemical analysis. Soil sampling tubes are typically closed at each end with Teflon® sheeting and plastic caps. The sample is then placed in a Ziploc® type bag and sealed. The sample is labeled and refrigerated at approximately 4° Celsius for delivery, under strict chain-of-custody, to the analytical laboratory.

Sample Identification and Chain-of-Custody Procedures

Sample identification and chain-of-custody procedures document sample possession from the time of collection to ultimate disposal. Each sample container submitted for analysis has a label affixed to identify the job number, sampler, date and time of sample collection, and a sample number unique to that sample. This information, in addition to a description of the sample, field measurements made, sampling methodology, names of on-site personnel, and any other pertinent field observations, is recorded on the borehole log or in the field records. The samples are analyzed by a California-certified laboratory.

A chain-of-custody form is used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples are shipped, the person in custody of them relinquishes the samples by signing the chain-of-custody form and

noting the time. The sample-control officer at the laboratory verifies sample integrity and confirms that the samples are collected in the proper containers, preserved correctly, and contain adequate volumes for analysis. These conditions are noted on a Laboratory Sample Receipt Checklist that becomes part of the laboratory report upon request.

If these conditions are met, each sample is assigned a unique log number for identification throughout analysis and reporting. The log number is recorded on the chain-of-custody form and in the legally-required log book maintained by the laboratory. The sample description, date received, client's name, and other relevant information is also recorded.

Equipment Cleaning

Sample bottles, caps, and septa used in sampling for volatile and semivolatile organics will be triple rinsed with high-purity deionized water. After being rinsed, sample bottles will be dried overnight at a temperature of 200°C. Sample caps and septa will be dried overnight at a temperature of 60°C. Sample bottles, caps, and septa will be protected from solvent contact between drying and actual use at the sampling site. Sampling containers will be used only once and discarded after analysis is complete.

Plastic bottles and caps used in sampling for metals will be soaked overnight in a 1-percent nitric acid solution. Next, the bottles and caps will be triple rinsed with deionized water. Finally, the bottles and caps will be air dried before being used at the site. Plastic bottles and caps will be constructed of linear polyethylene or polypropylene. Sampling containers will be used only once and discarded after analysis is complete. Glass and plastic bottles used by Stratus to collect groundwater samples are supplied by the laboratory.

Before the sampling event is started, equipment that will be placed in the well or will come in contact with groundwater will be disassembled and cleaned thoroughly with detergent water, and then steam cleaned with deionized water. Any parts that may absorb contaminants, such as plastic pump valves, etc. will be cleaned as described above or replaced.

During field sampling, equipment surfaces that are placed in the well or contact groundwater will be steam cleaned with deionized water before the next well is purged or sampled. Equipment blanks will be collected and analyzed from non-disposable sampling equipment that is used for collecting groundwater samples at the rate of one blank per twenty samples collected.

Internal Quality Assurance Checks

Internal quality assurance procedures are designed to provide reliability of monitoring and measurement of data. Both field and laboratory quality assurance checks are necessary to evaluate the reliability of sampling and analysis results. Internal quality assurance procedures generally include:

- Laboratory Quality Assurance

- Documentation of instrument performance checks
- Documentation of instrument calibration
- Documentation of the traceability of instrument standards, samples, and data
- Documentation of analytical and QC methodology (QC methodology includes use of spiked samples, duplicate samples, split samples, use of reference blanks, and check standards to check method accuracy and precision)

- Field Quality Assurance

- Documentation of sample preservation and transportation
- Documentation of field instrument calibration and irregularities in performance

Internal laboratory quality assurance checks will be the responsibility of the contract laboratories. Data and reports submitted by field personnel and the contract laboratory will be reviewed and maintained in the project files.

Types of Quality Control Checks

Samples are analyzed using analytical methods outlined in EPA Manual SW 846 and approved by the California Regional Water Quality Control Board-Central Valley Region in the Leaking Underground Fuel Tanks (LUFT) manual and appendices. Standard contract laboratory quality control may include analysis or use of the following:

- Method blanks – reagent water used to prepare calibration standards, spike solutions, etc. is analyzed in the same manner as the sample to demonstrate that analytical interferences are under control.
- Matrix spiked samples – a known amount of spike solution containing selected constituents is added to the sample at concentrations at which the accuracy of the analytical method is to satisfactorily monitor and evaluate laboratory data quality.
- Split samples – a sample is split into two separate aliquots before analysis to assess the reproducibility of the analysis.
- Surrogate samples – samples are spiked with surrogate constituents at known concentrations to monitor both the performance of the analytical system and the effectiveness of the method in dealing with the sample matrix.
- Control charts – graphical presentation of spike or split sample results used to track the accuracy or precision of the analysis.
- Quality control check samples – when spiked sample analysis indicates atypical instrument performance, a quality check sample, which is prepared independently of the calibration standards and contains the constituents of interest, is analyzed to confirm that measurements were performed accurately.

- Calibration standards and devices – traceable standards or devices to set instrument response so that sample analysis results represent the absolute concentration of the constituent.

Field QA samples will be collected to assess sample handling procedures and conditions. Standard field quality control may include the use of the following, and will be collected and analyzed as outlined in EPA Manual SW 846.

- Field blanks – reagent water samples are prepared at the sampling location by the same procedure used to collect field groundwater samples and analyzed with the groundwater samples to assess the impact of sampling techniques on data quality. Typically, one field blank per twenty groundwater samples collected will be analyzed per sampling event.
- Field replicates – duplicate or triplicate samples are collected and analyzed to assess the reproducibility of the analytical data. One replicate groundwater sample per twenty samples collected will be analyzed per sampling event, unless otherwise specified. Triplicate samples will be collected only when specific conditions warrant and generally are sent to an alternate laboratory to confirm the accuracy of the routinely used laboratory.
- Trip blanks – reagent water samples are prepared before field work, transported and stored with the samples and analyzed to assess the impact of sample transport and storage for data quality. In the event that any analyte is detected in the field blank, a trip blank will be included in the subsequent groundwater sampling event.

Data reliability will be evaluated by the certified laboratory and reported on a cover sheet attached to the laboratory data report. Analytical data resulting from the testing of field or trip blanks will be included in the laboratory's report. Results from matrix spike, surrogate, and method blank testing will be reported, along with a statement of whether the samples were analyzed within the appropriate holding time.

Stratus will evaluate the laboratory's report on data reliability and note significant QC results that may make the data biased or unacceptable. Data viability will be performed as outlined in EPA Manual SW 846. If biased or unacceptable data is noted, corrective actions (including re-sample/re-analyze, etc.) will be evaluated on a site-specific basis.

APPENDIX C

CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

FILE COPY
COPY

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Gowri Kowtha
Phone: (530) 676-6001
Fax: (530) 676-6005
Date Received : 05/15/06

JUN 05 2006

Job#: 2029-2400-01 Kwik Serve

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B/DHS LUFT Manual
Volatile Organic Compounds (VOCs) EPA Method SW8260B

	Parameter	Concentration	Reporting	Date	Date
			Limit	Sampled	Analyzed
Client ID : MW-4 Lab ID : STR06051607-01A	TPH-P (GRO)	ND	50 µg/L	05/15/06	05/18/06
	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	05/15/06	05/18/06
	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	05/15/06	05/18/06
	Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	05/15/06	05/18/06
	Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	05/15/06	05/18/06
	1,2-Dichloroethane	ND	1.0 µg/L	05/15/06	05/18/06
	Benzene	ND	0.50 µg/L	05/15/06	05/18/06
	Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	05/15/06	05/18/06
	Toluene	ND	0.50 µg/L	05/15/06	05/18/06
	Ethylbenzene	ND	0.50 µg/L	05/15/06	05/18/06
	m,p-Xylene	ND	0.50 µg/L	05/15/06	05/18/06
	o-Xylene	ND	0.50 µg/L	05/15/06	05/18/06

Gasoline Range Organics (GRO) C4-C13

Reported in micrograms per liter, per client request.

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

PS

8/22/06

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC Sample Preservation Report

Work Order: STR06051607

Project: 2029-2400-01 Kwik Serve

Alpha's Sample ID	Client's Sample ID	Matrix	pH
06051607-01A	MW-4	Aqueous	2

5/22/06

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:

23-May-06

QC Summary Report

Work Order:

06051607

Method Blank

Type **MBLK**

Test Code: **EPA Method SW8015B/DHS LUFT Manual**

File ID: **D:\HPCHEM\MS09\DATA\060518\06051806.D**

Batch ID: **MS09W0518B**

Analysis Date: **05/18/2006 13:35**

Sample ID: **MBLK MS09W0518B**

Units : **µg/L**

Run ID: **MSD_09_060518B**

Prep Date: **05/18/2006**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	50								
Surr: 1,2-Dichloroethane-d4	10.1		10		101	76	127			
Surr: Toluene-d8	10.2		10		102	84	113			
Surr: 4-Bromofluorobenzene	9.49		10		95	79	119			

Laboratory Control Spike

Type **LCS**

Test Code: **EPA Method SW8015B/DHS LUFT Manual**

File ID: **D:\HPCHEM\MS09\DATA\060518\06051805.D**

Batch ID: **MS09W0518B**

Analysis Date: **05/18/2006 13:12**

Sample ID: **GLCS MS09W0518B**

Units : **µg/L**

Run ID: **MSD_09_060518B**

Prep Date: **05/18/2006**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	431	50	400		108	78	127			
Surr: 1,2-Dichloroethane-d4	10.2		10		102	76	127			
Surr: Toluene-d8	10.2		10		102	84	113			
Surr: 4-Bromofluorobenzene	9.7		10		97	79	119			

Sample Matrix Spike

Type **MS**

Test Code: **EPA Method SW8015B/DHS LUFT Manual**

File ID: **D:\HPCHEM\MS09\DATA\060518\06051810.D**

Batch ID: **MS09W0518B**

Analysis Date: **05/18/2006 15:52**

Sample ID: **06051607-01AGS**

Units : **µg/L**

Run ID: **MSD_09_060518B**

Prep Date: **05/18/2006**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	2260	250	2000		0	113	70	139		
Surr: 1,2-Dichloroethane-d4	55.2		50		110	76	127			
Surr: Toluene-d8	50.1		50		100	84	113			
Surr: 4-Bromofluorobenzene	51.9		50		104	79	119			

Sample Matrix Spike Duplicate

Type **MSD**

Test Code: **EPA Method SW8015B/DHS LUFT Manual**

File ID: **D:\HPCHEM\MS09\DATA\060518\06051812.D**

Batch ID: **MS09W0518B**

Analysis Date: **05/18/2006 16:37**

Sample ID: **06051607-01AGSD**

Units : **µg/L**

Run ID: **MSD_09_060518B**

Prep Date: **05/18/2006**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	2200	250	2000		0	110	70	139	2258	2.7(12)
Surr: 1,2-Dichloroethane-d4	54		50		108	76	127			
Surr: Toluene-d8	50.4		50		101	84	113			
Surr: 4-Bromofluorobenzene	51.2		50		102	79	119			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Reported in micrograms per liter, per client request.



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:

23-May-06

QC Summary Report

Work Order:

06051607

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **D:\HPCHEM\MS09\DATA\060518\06051806.D**

Batch ID: **MS09W0518A**

Analysis Date: **05/18/2006 13:35**

Sample ID: **MBLK MS09W0518A**

Units: **µg/L**

Run ID: **MSD_09_060518B**

Prep Date: **05/18/2006**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Tertiary Butyl Alcohol (TBA)	ND	10								
Methyl tert-butyl ether (MTBE)	ND	0.5								
Di-isopropyl Ether (DIPE)	ND	1								
Ethyl Tertiary Butyl Ether (ETBE)	ND	1								
1,2-Dichloroethane	ND	1								
Benzene	ND	0.5								
Tertiary Amyl Methyl Ether (TAME)	ND	1								
Toluene	ND	0.5								
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
o-Xylene	ND	0.5								
Surr: 1,2-Dichloroethane-d4	10.1		10		101	76	127			
Surr: Toluene-d8	10.2		10		102	84	113			
Surr: 4-Bromofluorobenzene	9.49		10		95	79	119			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **D:\HPCHEM\MS09\DATA\060518\06051804.D**

Batch ID: **MS09W0518A**

Analysis Date: **05/18/2006 12:50**

Sample ID: **LCS MS09W0518A**

Units: **µg/L**

Run ID: **MSD_09_060518B**

Prep Date: **05/18/2006**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Benzene	9.86	0.5	10		99	81	122			
Toluene	10.3	0.5	10		103	80	120			
Ethylbenzene	9.83	0.5	10		98	80	120			
m,p-Xylene	11	0.5	10		110	80	129			
o-Xylene	10.1	0.5	10		101	80	129			
Surr: 1,2-Dichloroethane-d4	10.8		10		108	76	127			
Surr: Toluene-d8	10		10		100	84	113			
Surr: 4-Bromofluorobenzene	9.31		10		93	79	119			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW8260B**

File ID: **D:\HPCHEM\MS09\DATA\060518\06051811.D**

Batch ID: **MS09W0518A**

Analysis Date: **05/18/2006 16:15**

Sample ID: **06051607-01AMS**

Units: **µg/L**

Run ID: **MSD_09_060518B**

Prep Date: **05/18/2006**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Benzene	54.6	1.3	50	0	109	74	125			
Toluene	55.2	1.3	50	0	110	76	120			
Ethylbenzene	52.3	1.3	50	0	105	77	124			
m,p-Xylene	57.6	1.3	50	0	115	73	130			
o-Xylene	51.8	1.3	50	0	104	74	131			
Surr: 1,2-Dichloroethane-d4	56		50		112	76	127			
Surr: Toluene-d8	50		50		100	84	113			
Surr: 4-Bromofluorobenzene	51.5		50		103	79	119			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW8260B**

File ID: **D:\HPCHEM\MS09\DATA\060518\06051808.D**

Batch ID: **MS09W0518A**

Analysis Date: **05/18/2006 15:06**

Sample ID: **06051607-01AMSD**

Units: **µg/L**

Run ID: **MSD_09_060518B**

Prep Date: **05/18/2006**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Benzene	50.2	1.3	50	0	100	74	125	54.58	8.4(13)	
Toluene	49.5	1.3	50	0	99	76	120	55.18	11.0(13)	
Ethylbenzene	47	1.3	50	0	94	77	124	52.25	10.5(13)	
m,p-Xylene	51.3	1.3	50	0	103	73	130	57.55	11.5(14)	
o-Xylene	47.2	1.3	50	0	94	74	131	51.79	9.3(13)	
Surr: 1,2-Dichloroethane-d4	57.9		50		116	76	127			
Surr: Toluene-d8	48.5		50		97	84	113			
Surr: 4-Bromofluorobenzene	52.6		50		105	79	119			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Alpha Analytical, Inc.

Phone : (775) 355-1044 FAX : (775) 355-0406

Sample Receipt Checklist

Date Report is due to Client : 5/23/2006

Date of Notice : 5/16/2006 3:47:11 P

Please take note of any **NO** check marks. If we receive no response concerning these items within 24 hours of the date of this notice, all of the samples will be analyzed as requested.

Client Name: Stratus Environmental

Project ID : 2029-2400-01 Kwik Serve

Project Manager: Gowri Kowtha

Client's EMail: gkowtha@stratusinc.net

Work Order Number: STR06051607

Client's Phone: (530) 676-6001

Client's FAX: (530) 676-6005

Date Received: 5/15/2006

Received by: Elizabeth Sauvageau

Chain of Custody (COC) Information

Carrier name FedEx

Chain of custody present ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	
Custody seals intact on shipping container/cooler ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles ?	Yes <input type="checkbox"/>	<input type="checkbox"/> No	Not Present <input checked="" type="checkbox"/>
Chain of custody signed when relinquished and received ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	
Chain of custody agrees with sample labels ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	
Sample ID noted by Client on COC ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	
Date and time of collection noted by Client on COC ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	
Samplers's name noted on COC ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	
Internal Chain of Custody (COC) requested ?	Yes <input type="checkbox"/>	<input checked="" type="checkbox"/> No	
Sub Contract Lab Used :	None <input checked="" type="checkbox"/>	<input type="checkbox"/> SEM	Other (see comments) <input type="checkbox"/>

Sample Receipt Information

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	Not Present <input type="checkbox"/>
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	
Container/Temp Blank temperature in compliance (0-6°C)?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	Cooler Temperature 4 °C
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	No VOA vials submitted <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	
TOC Water - pH acceptable upon receipt (H2SO4 pH<2)?	Yes <input type="checkbox"/>	<input type="checkbox"/> No	N/A <input checked="" type="checkbox"/>

Analytical Requirement Information

Are non-Standard or Modified methods requested ?	Yes <input type="checkbox"/>	<input checked="" type="checkbox"/> No	
Are there client specific Project requirements ?	Yes <input type="checkbox"/>	<input checked="" type="checkbox"/> No	If YES : see the Chain of Custody (COC)

Comments :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

TEL: (775) 355-1044 FAX: (775) 355-0406

Client: Stratus Environmental

3330 Cameron Park Drive

Suite 550

Cameron Park, CA 95682-8861

Report Attention : Gowri Kowtha

CC Report :

Report Due By : 5:00 PM On : 23-May-06

EDD Required : No

Sampled by : D. Foland

Job : 2029-2400-01 Kwik Serve

PO :

Client's COC # : 12048

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Cooler Temp 4 °C
Samples Received 15-May-06
Date Printed 16-May-06

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles			Requested Tests			Sample Remarks
				AQ	ORG	SUB	TPHP_W	VOC_W	GAS-C	
STR06051607-01A	MW-4	AQ	05/15/06 11:45	5	0	6			BTEX/OXY, 1,2-DCA, C	

Comments:

Security seals intact. Frozen ice. Samples received Monday 5/15, kept cold and secure until login Tuesday 5/16. Send copy of receipt checklist with final report.

Signature

Logged in by:

Elizabeth Sauvageau

Print Name

Elizabeth Sauvageau

Company

Alpha Analytical, Inc.

Date/Time

5/16/06 15:28

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

